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ABSTRACT

This compilation of research activity conducted during 1970-71 in the North Atlantic Region includes 45 abstracts of completed studies and a list of 22 studies that are in progress. All completed studies are available for loan from university libraries, departments of agricultural teacher education, state departments of agricultural teacher education, state departments of vocational and technical education, or local educational agencies. Both the studies completed and the studies in progress are sorted by state and type of study in an introductory status report. Abstracts, which are listed in alphabetical order by author, include statement of purpose, methodology used, and findings. (Author/JS)

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SUMMARIES OF STUDIES

In

AGRICULTURAL EDUCATION

NORTH ATLANTIC REGION

1970 - 1971

STATUS REPORT

STUDIES IN PROGRESS

ABSTRACTS

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THE DEPARTMENT OF
VOCATIONAL-TECHNICAL EDUCATION
GRADUATE SCHOOL OF EDUCATION
RUTGERS UNIVERSITY
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Summaries of Studies in Agricultural Education

North Atlantic Region

1970-71

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STATUS REPORT

This compilation of research activity during 1970-71 in the North Atlantic Region includes 45 abstracts of completed studies and a list of 22 studies that are in progress at the present time. All completed studies are available for loan from university libraries, departments of agricultural teacher education, state departments of vocational and technical education, or local educational agencies. Both the studies completed and the studies in progress are analyzed by state and type of study.

An analysis of Table I indicates that the main source of manpower for research activities is graduate students. Thirty nine of the 45 studies in 1970-71 were completed by graduate students. The total of 45 studies completed compares with 43 studies in 1969-70 and 42 studies in 1968-69.

The research activity in the North Atlantic Region has been fairly consistent for the past three years. The total of 45 studies completed in Table I compares with 43 studies completed in 1969-70 and 42 studies in 1968-69. There is less consistency in the type of study. Table I indicates a distribution of staff studies, 13 doctoral dissertations, and 26 masters degree studies. In 1969-70, the distribution included 5 staff studies, 6 doctoral dissertations, and 32 masters degree studies. Comparable data for 1968-69 provided 3 staff studies, 15 doctoral dissertations, and 24 masters degree studies.

TABLE I

Studies Completed in North Atlantic Region by State and Type of Study

State	Type of Study: Staff	Doctoral	Masters	Total
Maryland	0	2	1	3
New Jersey	0	0	1	1
New York	4	3	2	9
Pennsylvania	1	8	7	16
Rhode Island	0	0	8	8
West Virginia	0	0	7	7
Vermont	1	0	0	1
	6	13	26	45

The section on Studies in Progress can be very helpful to researchers pursuing their individual projects. It provides an opportunity for researchers of similar topics to correspond and assist each other before their projects are completed. Two conclusions can be drawn from Table II. Either less research projects are anticipated for 1972-73, or less emphasis is being placed on the reporting of studies in progress by the individual states.

TABLE II

Studies in Progress in North Atlantic Region by State and Type of Study

State	Type of Study: Staff	Doctoral	Masters	Total
Connecticut	1	0	0	1
New Jersey	1	0	0	1
New York	6	0	0	6
Pennsylvania	3	4	1	8
Rhode Island	1	0	2	3
Vermont	3	0	0	3
	15	4	3	22

The summary reflects studies that have been reported by personnel in agricultural education. It provides a guide to research findings and trends in the North Atlantic Region.

STUDIES IN PROGRESS

ANTHONY, FRANK. Development of a Scale to Measure Attitudes of Hunters Toward Hunting and Safety Education. Staff Study, Agr. Exp. Sta. Project No. 1942. Department of Agricultural Education, The Pennsylvania State University, University Park.

BAIL, JOE P. Image of Occupational Education Programs Held by Students, Parents, and Prospective Employers. Staff Study. Agricultural Education Division, Cornell University, Ithaca.

BERKEY, ARTHUR L. Development of a Validated Instrument to Measure Image in Agribusiness. Staff Study. Agricultural Education Division, Cornell University, Ithaca.

BERKEY, ARTHUR L. The Relevance of Secondary Occupational Education in Agriculture to Occupational Status and Image, Staff Study. Agricultural Education Division, Cornell University, Ithaca.

BERKEY, ARTHUR L. and WILLIAM E. DRAKE. Task Analysis in Ornamental Horticulture. Staff Study. Agricultural Education Division, Cornell University, Ithaca.

CAMPBELL, RANDALL G. The Development and Evaluation of a Milk Marketing Instructional Unit Analyzed in Relation to Attitudes and Knowledge Perceived as Needed and Attained by Dairy Farmers Enrolled in Young-Adult Farmer Classes in Pennsylvania. Thesis, D.Ed., Department of Agricultural Education, The Pennsylvania State University, University Park.

CONNECTICUT AGRICULTURAL ECONOMICS DEPARTMENT. An Intensive Follow-up Study of Connecticut Vocational Agriculture Graduates of the Classes of 1961, 1964, 1967, and 1970. Staff Study. Agricultural Economics Department, University of Connecticut,Storrs.

CLEMMONS, JESSE S. An Evaluation of Five Approaches to Providing Middle Grades Occupational Exploration in North Carolina. Thesis, D.Ed., Department of Agricultural Education, The Pennsylvania State University, University Park.

CURTIS, SAMUEL M. Education in Agriculture for the Educationally Disadvantaged. Staff Study, PDE Project No. 19-1012, Department of Agricultural Education, The Pennsylvania State University, University Park.

DEL POZZO, STEPHEN M. Learning Experiences Associated With Assessment of Skills Necessary for Greenhouse Operation and Management Careers. Teacher Education, College of Resource Development. Supervised Field Practicum, M.A., University of Rhode Island, Kingston.

DRAWBAUGH, CHARLES C. and RICHARD H. MERRITT. New Jersey Manpower Needs in Areas Related to Natural Resources and/or Agriculture and Implications for Educational Program Development. College of Agriculture and Environmental Science and Department of Vocational-Technical Education, Rutgers University, New Brunswick, New Jersey.

FULLER, GERALD R. Relationship Between Selected Characteristics and Academic Success in the College of Agriculture and Home Economics. Staff Study, Vocational, Technical, and Extension Education Department, University of Vermont, Burlington.

FULLER, GERALD R. and JOHN WINN. A Model for Conducting Follow-Up Studies of Dropouts and Graduates of Vocational Education in Vermont. Staff Study, Vocational, Technical, and Extension Education Department, University of Vermont, Burlington.

FULLER, GERALD R. and JOHN WINN. Career Patterns of Vocational Students Leaving School 1967, 1968, 1969, 1970. Research Coordinating Unit Study, Vocational, Technical, and Extension Education Department, University of Vermont, Burlington.

HILTON, JAMES W. Teacher Attitudes Toward Selected Instructional Materials Developed for Teachers of Agriculture. Thesis, M.S., department of Agricultural Education, The Pennsylvania State University, University Park.

MCCREIGHT, DONALD E. Establishment of Cooperative Work Experience Programs for Off-Farm Agricultural Occupations in Rhode Island. Teacher Education, College of Resource Development, University of Rhode Island, Kingston.

MORTENSEN, JAMES H. Effects of Forestry Instructional Units, Behavioral Objectives, and Realia on Student Knowledge, Interests, and Attitudes. Thesis, Ph.D., Department of Agricultural Education, The Pennsylvania State University, University Park.

NASSAU COUNTY BOARD OF COOPERATIVE EDUCATIONAL SERVICES. Study of Occupational Education, Grades 7-10. 125 Jericho Turnpike, Jericho, New York.

NORTHERN FRANKLIN BOARD OF COOPERATIVE EDUCATIONAL SERVICES. Placement of Graduates from Occupational Conservation Programs. Malone, New York,

REIMOLD, IVAN L. Use of Field Crop Environmental Data in Teaching Applied Biology of Nematodes. Thesis, D.Ed., Department of Agricultural Education, The Pennsylvania State University, University Park.

SANDHAM, THOMAS P. III. Development and Implementation of a High School Course of Study for Aquatic and Marine Careers. Supervised Field Practicum, M.A., Teacher Education, College of Resource Development, University of Rhode Island, Kingston.

STINSON, RICHARD F. and JAMES H. MORTENSEN. Career Education in Natural Resources. Staff Study, USOE Grant OEG-0-71-4432-357, Department of Agricultural Education, The Pennsylvania State University, University Park.

ARZAMARSKI, CASSANDRA E., "Personal Learning Experiences Attained in the Construction of an Anti-Drug Program for Grades Seven Through Twelve." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 64p. Department of Education, University of Rhode Island, Kingston.

Purpose--This supervised field practicum was undertaken to provide the author the opportunity to gain knowledge and experience in the planning procedures for a state-required program in drug education for grades seven through twelve.

Method--The author used the following procedures to gain her personal learning objectives: (1) The author wrote letters to state officials to find out state requirements and restrictions for such a program and wrote to authorities in the field of drug education to gain advice concerning the construction of such a program. (2) The author interviewed administrators and science faculty members of her school to ascertain their expectations and opinions of such a program. (3) The author constructed and administered a questionnaire to the students of her school to ascertain their expectation and opinions of such a program. (4) The author planned the program in regards to time, materials, type of instruction, and testing procedures incorporating information obtained through correspondence, interview, and questionnaire techniques.

Findings--The author was successful in obtaining information she needed in order to plan an anti-drug program. She was also successful in meeting her practicum objectives which consisted of her intentions to gain experience in: correspondence techniques, interview techniques, questionnaire techniques, and program planning.

The author recognizes that the learning experiences she attained in this practicum will be of value to her throughout her career as teacher and possibly, in the future, administrator. Program planning is an integral part of an educator's responsibility.

BARTOO, DONALD A., "Survey of Agricultural Manpower needs for Erie." Staff Study, 1971, Erie County Second Supervisory District, Eden, New York.

Purpose--To conduct a survey that would provide reliable data from which an agricultural program could be developed (in Erie County) that would be geared to the manpower needs of the area.

Method--Data was collected by occupational clusters and sub-clusters according to "Vocational Education and Occupations." Other groupings were made according to sex, geographic area and employment level.

A questionnaire was developed to collect data to achieve objectives of the study. Agencies to be interviewed were determined from the following sources:
1. the yellow pages of city and county directories
2. the county agricultural extension agent
3. federal, state, county and town governmental officials
4. agricultural cooperatives and associations
5. agricultural teachers of the county (Erie)

The author requested responces to the questionnaire to anticipate needs in five years. This was a difficult area in which to obtain adequate responces because of uncertainty of the future.

Findings--I AGRICULTURAL PRODUCTION (Animal Science, Plant Science) This cluster represents approximately 25% of the manpower needs in the Erie County Survey.

II AGRICULTURAL SUPPLIES - SERVICES
This cluster represents approximately 12% of the manpower needs in the Erie County Area.

III AGRICULTURAL MECHANICS
This cluster represents approximately 3% of the agricultural manpower needs.

IV AGRICULTURAL PRODUCTION (food--dairy production, processing and distribution)
19% of the agricultural manpower in Erie County is included in this category.

V ORNAMENTAL HORTICULTURE (nursery, florist, greenhouse production, landscaping)
32% of the manpower needs in agricultural occupations in Erie County are included in this agricultural category.

VI AGRICULTURAL RESOURCES (Park systems, Recreational areas)
9% of the agricultural occupations in Erie County.

Recommendations from this study are as follows:
- the term agriculture needs to gain new meaning for the general public
- manpower requirements in Erie County indicate the need for a well balanced agricultural education program offered in the occupational center in Buffalo City area.

BENNETT, WAYNE., "Values Derived Through Study and Application of Land Judging in West Virginia." Thesis, M.S., 1971, West Virginia University, 107p. Library, West Virginia University, Morgantown.

Purpose--The purpose of this study was to evaluate knowledge and practices obtained through land judging.

Method--Data for this study were obtained by use of a questionnaire which was sent to (1) members of the Future Farmers Organization who have won the West Virginia State land judging contests, (2) West Virginia vocational agriculture teachers, (3) West Virginia soil scientists, (4) West Virginia district soil supervisors, (5) West Virginia county extension agents, (6) West Virginia district soil conservationists, and (7) West Virginia 4-H personnel who have contributed to land judging.

Findings--Land judging is one of the best teaching tools available to help folks understand the soil and its use. The following are some important values derived from land judging:

1. Land judging determines and influences occupational choices.
2. Land judging furnishes knowledge valuable to any occupational or non-occupational endeavor.
3. Land judging is valuable in every land use practice applied to the land.
4. Land judging develops social attitudes, friendships, economic understanding of lands, geographic knowledge, and teaches that many of the physical objects in our society depend upon the soil.
5. Land judging should be expanded in areas where it is presently used, in new areas of land use, and in areas where inadequate knowledge is present. Land judging should expand to accommodate more people.
6. The overall educational values of land judging are not being developed to their fullest extent.

BOMA, ALARIC N., "Problems and Proposed Solutions of Agricultural Education at the Elementary School Level in West Cameroon." Ph.D. thesis, 1971. Cornell University. 358p Mann Library, Ithaca, New York.

Purpose--The purpose of this study was to identify and analyze the present status and major problems of existing programs of agricultural education at the school level in West Cameroon; and to formulate solutions to the problems identified as a basis for effective development of agricultural education programs in the elementary schools.

Method--The study involved use of questionnaires to obtain information from several categories of respondents on agricultural education at the elementary level in West Cameroon. Respondents were the Director of Education and the four Secretaries of Schools as State level respondents, six Supervisors and four Managers of schools as divisional level respondents, and 46 headmasters, 46 non-specialist agriculture teachers and a total of 276 class 5 and 7 students as school level respondents. School level respondents were selected from a randomly selected 10 percent sample of class 7 schools (46 schools in all) stratified by type of school and political division. In addition, 52 specialist agriculture teachers employed in the school system were also respondents.

Data gathered included (1) respondent personal data on various aspects of agricultural education in the system and (3) respondent ranking of given problems in educational areas. Chi square tests were used to determine statistical differences between the responses of respondents.

The scope of the study is limited to agricultural education at the elementary level in the West Cameroon.

Findings--Positive aspects were: the provision of similar experiences to students in the areas of crop production, the initiative of the agriculture teachers in establishing the agricultural programs without financial support, the mandatory agricultural education for all elementary students and the considerable influence of the students over the agricultural activities of their parents.

The findings also revealed program problem areas. Financial problems gave rise to inadequate provision of teaching and supervisory personnel, shortage of teaching materials and methods and consequently the agricultural teachers' capacity to function effectively in the development of several aspects of the agricultural programs and in particular the Young Farm Program and the out-of-school youth programs were limited by the scarcity of financial resources.

BOWER, RONALD D., "Continuing Education for Adults Employed in Off-Farm Agricultural Occupations in the Chambersburg Area School District." Paper, M.Ed., 1970, The Pennsylvania State University. 37p. Library, The Pennsylvania State University, University Park.

Purpose--(1) To determine if the managers of agri-businesses in the Chambersburg School District felt that they or their employees could benefit from adult education courses in agriculture, (2) to determine what agricultural subject matter areas are most needed, (3) to determine what length of class, times of meeting and place of class meeting would be most satisfactory, and (4) to determine if the program would be training persons for entry level job titles or for advanced job titles.

Method--A two-part interview schedule was developed. Part I pertained to class organization and determining the need for classes. Part II contained a list of 94 competences in Agri-business Management, Plant Science, Soil Science, Agricultural Mechanics and Animal Science. The managers rated the importance of these competences on a 5-point scale.

The interview schedule was mailed to the managers of all agri-businesses in the Chambersburg Area School District employing more than 3 persons. This was followed by a phone call and a personal visit to the business to complete the schedule.

Findings--Results of the study indicated that there was a need for this type of program. Most managers felt that the courses should be organized on a one night a week basis, be 20-40 class hours in length, and be held in the local high school.

The several types of businesses placed emphasis on different areas of instruction. Agricultural supply businesses and greenhouses placed emphasis on plant and soil science; feed dealers emphasized animal science; and farm machinery dealers emphasized agricultural mechanics.

Two areas of instruction were rated high by all businesses interviewed. These were agri-business management and agricultural mechanics.

BUTLER, JEFFREY F., "Personal Learning Experiences Gained While Working in an Adult Learning Group." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 46p. Department of Education, University of Rhode Island, Kingston.

Purpose--This practicum was planned to provide the writer with an opportunity for gaining experience and increasing ability in: (1) improving environment, atmosphere and style of communication in a group so the needs and feelings of each member would be discovered, (2) helping group members express their feelings in an atmosphere of open communication, and (3) finding ways to work with and help group members.

Method--The following procedures were used: (1) a method was developed for "starting the group" toward discovering the needs and feelings of group members and to practice group maintenance in this direction, (2) the writer reviewed methods and worked with the cooperating teacher in developing open communication within the group, (3) reading on acceptance, and (4) the writer utilized his notes and used suggestions from the cooperating teacher to help develop acceptance and cooperation between group members.

Findings--The writer gained experience in "releasing" attitudes and actions toward discovering the needs and feelings of group members, in helping group members develop and feel comfortable with styles of open communication and in helping group members develop acceptance of and an ability to work with others. The writer also experienced changes in his attitudes and the development of his leadership ability.

As a result of this practicum the writer recommends the following as a vital part of an attitude for approaching the leadership of a group: (1) Awareness of the importance of "releasing" attitudes and actions toward discovering the needs and feelings of group members, (2) Awareness of the need to help group members feel comfortable with "open" communication, and (3) Awareness of the need to help group members develop acceptance of and an ability to work with others.

CARROLL, BRIAN J., "Personal Learning Experiences Gained While Studying the Effects of Transience on High School Students." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 43p. Department of Education, University of Rhode Island, Kingston.

Purpose--This practicum was undertaken to provide the author with an opportunity to increase his ability to understand and communicate effectively with students and parents.

Method--The following procedures were used: (1) the author constructed a questionnaire and administered it to seventy-three transient students at Portsmouth High School; (2) the author organized and led two discussion groups composed of high school transient students; (3) the author conducted nine interviews with parents of transient students.

Findings--The objectives stated in the proposal for this practicum were achieved. The project was a valuable learning experience for the author. Learnings associated with building and administering the questionnaire included some insight into the nature and type questions used on questionnaires, the importance of a proper question sequence, the necessity of avoiding leading questions, and the value of careful administration. In the area of small group discussion, the author gained experience in creating group atmosphere, encouraging and regulating participation, and in handling information effectively. During the interviewing portion of the project, the author gained valuable experience in securing the cooperation of the interviewee and in handling and obtaining information effectively with a conversational approach to the interview.

All three procedures provided excellent learning experiences for the author. If undertaking the project a second time, the author would spend a greater proportion of time working with the discussion groups. Potential learnings in the area of leading the small discussion group are almost unlimited and extensive experience is essential.

CROSS, DONALD S., "Cooperative Education in Diversified Occupations in a Comprehensive Senior High School." Thesis, D.Ed., 1971, The Pennsylvania State University. p Library, The Pennsylvania State University, University Park.

Purpose--The study appraised a cooperative education program in diversified occupations at the State College Area Senior High School, State College, Pennsylvania, for the 1964-1965 school year through the 1969-1970 school year. The following hypotheses were tested: (1) There is association of the student's occupational preference for on-the-job training in cooperative vocational education with: (a) father's occupation, (b) previous high school program of studies, and (c) plans for post-secondary education. (2) There is association between sex of the student and the year in school in which students enrolled in the cooperative education program and the specific reasons for wanting to enroll in the cooperative education program. (3) There is relationship between the student's occupational training program in cooperative vocational education and the graduate's occupation at the time of the study.

Method--There were 195 students in the program in the six years. One hundred fifty-five seniors had one year of training. The student population was composed of 115 boys and 80 girls. Pertinent data were collected from the student's application for admission in cooperative education, annual summaries, and a survey to determine the occupational status of each student on January 1, 1971.

Findings--(1) Placement of students for specific training included 80 students in sales occupations, 52 students in fourteen crafts occupations, 49 students in ten clerical occupations, 14 in seven service occupations, 8 students in four professional or technical occupations, and 6 students in three operative occupations. (2) Sixty-eight percent of the graduates available for the labor force were employed in the occupation in which they received their training or employed in jobs related to their occupational training. Annual data obtained each July following high school graduation showed that from 66 percent to 87 percent of the students were employed in the same or a related occupation. (3) No association was found between sex or year in school in which students enrolled in the program and specific reasons for enrolling in cooperative education. The main reasons given were to receive occupational training, to gain practical experience, and to earn money while in high school. (4) Students previously enrolled in curriculums other than the general curriculum selected occupations in which they could apply previous training while gaining practical experience. (5) The students tended to select occupations which required the same level of general education development as required for the father's occupation.

CUTLER, SUSAN R., "A Personal Learning Experience in the Coordination of an Adult Education Program at the Rhode Island Adult Correctional Institution." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 36 pp. Department of Education, University of Rhode Island, Kingston.

Purpose--This practicum was planned to provide the author with the opportunity to: (1) gain experience setting up an adult education program in a penal institution, (2) gain experience recruiting and preparing teachers to teach in a penal institution, (3) learn to schedule classes in a penal institution, and (4) learn to evaluate a program of adult education.

Method--The author employed the following procedures: (1) Conferences were conducted with Mr. Leo DiMiao, former Director of Education, prison administrators, and inmates to obtain information regarding the educational situation at the prison, (2) An announcement asking certified teachers to volunteer to teach at the prison was distributed, (3) Teachers with whom the author was acquainted were asked to participate, (4) Orientation meetings with volunteer teachers were conducted before and while the program was in effect, (5) The author met with prison officials to devise a teaching schedule, (6) Resources concerning the construction of an evaluation tool were consulted, (7) This evaluation form was administered to teachers and inmates.

Findings--The learning objectives the author wanted to accomplish were achieved since: (1) permission to institute this program was granted and the program was put into effect, (2) volunteer teachers who participated in the program for an entire semester were secured, (3) consultations with volunteer teachers were conducted to assess their relationships with inmates and to clarify prison regulations, (4) a workable schedule was devised and put into practice, (5) an evaluation form was constructed and administered to teachers and inmates. The results obtained from the use of the evaluation forms were employed to assess the overall value of the program.

The author hopes that as a result of positive responses by all those who participated in this program, more interest will be generated to increase educational opportunity at the Rhode Island Adult Correctional Institution.

EATON, JOHN L., "Environmental Attitude and Health Knowledge of Tenth Grade High School Students." Thesis, D.Ed., 1971, The Pennsylvania State University. 90p Library, The Pennsylvania State University, University Park.

Purpose--To evaluate and compare environmental attitude and health knowledge scores of tenth grade students in a random sample of Pennsylvania schools that teach agriculture. Null hypotheses were tested for differences among groups of students classified according to place of residence, sex, curriculum enrollment and school attended. Relationship between attitude toward twelve environmental pollution concepts and health knowledge.

Method--The criterion measures were the Health Education Test: Knowledge and Application, Form A, by John H. Shaw, et al., and a semantic differential attitude test using eight bi-polar adjective scales selected from Osgood's evaluative and Larrabee's wholesomness dimensions. The concepts rated were water pollution, insect poison, dense population, air pollution, atomic radiation, rubbish and junk, sewage, chemical weed killer, garbage, industrial waste, trash, and smoke.

Twelve Pennsylvania high schools were chosen. Sample groups of students in each school were (1) all tenth grade students, (2) the tenth grade agriculture class, and (3) a tenth grade biology class. The investigation administered the tests in each school. Data were analyzed by analysis of covariance and the Duncan Multiple Range Test.

Findings--There were no significant differences between boys and girls in either environmental attitude toward pollution concepts or health knowledge. Likewise, no differences were found among students classified according to farm, suburban, or urban residence. The random sample boys scored significantly higher than vocational agriculture boys on both tests.

The environmental attitude scores of the girls in the selected biology classes were significantly higher than the boys' scores. Farm residence students in these classes were significantly higher than the boys' scores. Farm residence students in these classes were significantly lower on environmental attitude.

Correlation of scores on the two tests were significant at the .05 level for the agriculture students and the biology students. The all-student mean scores on health knowledge were significantly lower at the .05 level in three of the twelve schools. It was concluded that environmental attitude toward pollution concepts can be measured by the semantic differential technique.

ESPY, JOHN P., JR., "Development and Evaluation of a Course of Study for Inmates at the State Correctional Institution at Rockview to Prepare Them to Be Efficient Farm Equipment Operators." Paper, M.Ed., 1971, The Pennsylvania State University. 127p Library, The Pennsylvania State University, University Park.

Purpose--To formulate a training manual to facilitate individualized training, to develop competency tests that would indicate the degree of success for each student, to produce an incentive for learning, to evaluate two different methods of teaching inmates at the State Correctional Institution at Rockview to be efficient farm equipment operators, and to compare each inmate's practical operating ability with his posttest score on the written examination.

Method--Eighteen inmates at the State Correctional Institution at Rockview, all of whom were volunteers, were randomly divided into two test groups of equal size. (1) Group 1 consisted of students using the training manual plus formal instruction. (2) Group 2 consisted of students using the training manual plus self-instruction.

The instruction for Group 1 and the informal learning for Group 2 were conducted for eight days. Group 2 was given instruction in the use of the training manual, testing procedure and objectives, and was instructed that questions would be entertained by a qualified tradesman instructor. Members of each group were instructed that final scores would determine the order in which each inmate could select his tractor. Tests for both groups were given simultaneously at the same location. Also, each inmate was informed that his pay would be determined by the number of farm machines that he could competently operate.

Findings--No significant difference was found by analysis of covariance in the effectiveness of learning by the formal classroom instruction instruction method and by the self-taught method. The mean pretest score for Group 1 was 40.8, and the mean pretest score for Group 2 was 38.7. The mean post-test score for Group 1 was 71.4, and the mean post-test score for Group 2 was 72.7.

No significant difference was found by analysis of covariance in practical driving ability on an approved tractor driving course between Group 1, the inmates who received classroom instruction, and Group 2, who had self-instruction. The mean practical driving score for Group 1 was 74.0, and the practical driving score for Group 2 was 77.2.

ETHIRVEERASINGAM, NAGALINGAM., "The effect of Advance Presentation of Organizers on Complex Verbal Learning and Retention by Vocational Agriculture Students in New York State." Thesis Ph. D., 1971, Cornell University. 90p. Mann Library, Cornell University, Ithaca.

Purpose--The purpose of this investigation was to compare the effect of organizers to that of overview and summary in learning and retaining complex verbal material.

Method--One hundred and eighty two students enrolled in the Farm Production and Management course in the secondary schools in New York State were the subjects. The population was limited to the students in the eleventh grade. The subjects were randomly assigned to eight experimental groups of a factorial design resulting from the comparison of two levels of retention, two and nine days after treatment, and four levels of treatment. The material to be learned was a 2500-word passage on the structure and growth of the corn plant. The three organizers used were illustrated descriptions of the process of photosynthesis, the plant food cycle, and the reproductive cycle.

The four levels of treatment were as follows: Treatment 1: The overview was read twice. The next day the overview was read twice and then the passage and summary was read twice. Treatment 2: The organizers were read twice. The next day the organizers were read twice and then the passage was read twice. Treatment 3: The organizers and the passage, which were attached together, were read twice. Treatment 4: The passage was read twice and then the organizers were read twice.

The criterion test used consisted of twenty eight multiple choice items to measure knowledge--the lowest category in Bloom's Taxonomy of Educational Objectives.

Findings--An analysis of variance test revealed no significant differences between treatments. There were also no significant interactions between Retention and Treatment. It was concluded that organizers and overview and summary, if at all they contribute to the learning and retention of complex verbal material by the vocational agriculture students in New York State, they do so to the same extent.

GAGNI, ARSENIO O., BARILE, DELORES P., AND CUSHMAN, HAROLD R. Agricultural Education Secondary School Programs in Southeast Asia. Staff Study, 1970. University of the Philippines, College of Agriculture. 56p. Agricultural Education Division, Cornell University, Ithaca, New York.

Purpose--The purpose of this study was to observe and describe strong innovative programs of vocational agriculture at the secondary level in various Asian settings.

Method--Directors of Agricultural Education in Thailand, Republic of China, Japan, and South Korea were asked to recommend innovative and outstanding local programs. A comprehensive interview schedule was developed, field tested, and revised. The authors visited the four countries during the period September 22 to October 20, 1969 and averaged a week in each country devoted to: Briefing by directors of Agricultural Education and the central office staff in the ministry of education, conferences with the Agricultural Education staff at the leading teacher training institution, and interviews and conferences with the staff of local agricultural schools and touring their facilities.

Findings--Case studies are presented for Chiengmai College of Agriculture (Thailand), Taiwan Provincial Taoyuan Senior Vocational Agricultural and Industrial School (Republic of China), Suwon Agricultural and Forestry High School (South Korea), and Schizuoka Agricultural Management Public High School (Japan). Each case study contains detailed information concerning: location, history, main agricultural enterprises in the area served by the school, trends in agriculture in the area, administration, financing, purposes, curricula, physical facilities, teaching staff, admission requirements, student fees, enrollment, drop-outs, methods of teaching, student organizations, practice requirement, adult education, and evaluation.

Innovations meeting the criteria of uniqueness, excellence of outcome, viability, and promise for try-out, adaptation, and adoption in other countries are highlighted in the report.

GAGNI, ARSENIO O., SANTOS, SEVERINO R. AND CUSHMAN, HAROLD R., "The Effective Presentation of Agricultural Research Findings for Use by Students in Agricultural High Schools of the Philippines." Staff Study, 1970. University of the Philippines, College of Agriculture. 21p. Agricultural Education Division, Cornell University, Ithaca, New York.

Purpose--The purposes of this study were: to determine the reading level of students in the national agricultural schools, to ascertain the farming enterprise areas in which agricultural research findings were most needed, to obtain student suggestions for improving publications prepared for student use, and to publish and distribute the most urgently needed materials.

Method--A diagnostic reading test was administered to a stratified random sample of 768 students. Teaching materials available in school libraries or from colleges of agriculture were inventoried. Suggestions for improvement of materials distributed by UPCA were received from a stratified random sample of 434 students who had used the materials previously distributed. Three experienced teachers of agriculture were granted a year's leave of absence from their respective positions by the Bureau of Vocational Education and assigned to the project headquarters at UPCA as writers.

Findings--The reading ability of students enrolled in the national agriculture schools ranged from grade 4 to grade 10 with a mean of grade 6 to 7. Sixty-eight percent of the students read in the range of from grade 5 to 8. The ten farming enterprises in which research findings were most needed were judged to be: rice, corn, poultry, coconut, pechay, tomato, peas and beans, sugar cane, cabbage, and beef cattle. Students who had used materials published by the College suggested that priority attention should be given in producing new materials to: removing author bias, including more research data, more and better illustrations, more complete information, and better quality printing. One of the main outcomes of the project was the publication and distribution of ten letter-press bulletins by the UPCA, e.g., Rice Production in the Philippines. 105p.

GRANT, LEE P., "Identification of Mechanics Competency Groups Needed for Skilled and Semi-Skilled Labors in Horticultural Occupations." Thesis, M.S., 1971, The Pennsylvania State University. 50p Library, The Pennsylvania State University, University Park.

Purpose--The purposes of the study were (1) to identify from 16 mechanics competency groups, those which employers deem important for skilled and semi-skilled employees to possess in order to perform their jobs satisfactorily, and (2) to place a priority on the mechanics competency groups for each of the seven occupational areas of ornamental horticulture.

Method--Fifty-three employers in seven horticultural occupational areas (Garden Centers, Golf Courses, Greenhouses, Landscape and Nursery, Lawn Maintenance, Park Service, and Tree Service) identified as important and rated competency groups from a list of sixteen such groups. The list included: equipment operation, spraying and spreading equipment, tree tools, grass care equipment, air compressors and pneumatic powered equipment, steam generators and boiler systems, irrigation and sprinkling systems, mechanically operated environmental controls, equipment repair and maintenance, small engines, hydraulics systems and controls, plumbing, electricity, construction, tool fitting and repairing, and arc and gas welding.

The sign test treatment was used to test the hypotheses and identify those groups which were rated higher.

Findings--All sixteen competency groups are important at some degree across the total occupational field of ornamental horticulture. Irrigation and sprinkling systems ranged from the top priority level in garden centers and greenhouses to the lowest in the tree service area. Small engines was of moderate importance, at priorities ranging from level two to level four in all occupational areas. Equipment operation and spraying and spreading equipment were of high and moderate importance in all areas at levels one to three. Air compressors and pneumatic powered equipment was of little or no importance in all occupational areas at priority level of the other groups varied depending on the occupational area being discussed.

GRIFFITH, JOHN D., "An Analysis of the Pennsylvania Crop Improvement Association's One Acre Corn Contest 1966-1970." Paper, M.Ed., 1971, The Pennsylvania State University. 57p Library, The Pennsylvania State University, University Park.

Purpose--To evaluate the results of the Pennsylvania Crop Improvement Association's one acre corn contest from 1966-1970 to determine which corn growing practices contributed to increased corn yield and profit.

Method--A summary form for the collection of data from each high school agriculture student and 4H member in the Pennsylvania Crop Improvement Association's one acre corn contest from 1966-1970 was used. Forms from all participants in the contest were available from the Pennsylvania Crop Improvement Association. There were 334 entries in the contest in the five years.

To facilitate the analysis and interpretation of data, several classifications of data were examined. Four row width classifications, 30-34", 35-36", 37-38", 39-42", were used. Soils were classified into the four cropland soil groups used by The Pennsylvania State University College of Agriculture Soil Testing Service. Weed control groups were classified as 2,4D, atrazine, combination of 2,4D and atrazine, and cultivation. Four maturity group classifications were used according to the one-acre corn contest maturity group divisions. Statistical data were analyzed using correlation and analysis of variance.

Findings--The most important findings are summarized as follows: (1) Yield and profit correlated with maturity group at .01 level. Profit correlated with yield at .01 level and cost with yield at .05 level. (2) The longer season hybrids were significantly higher at the .01 level in yield and profit than the shorter season hybrids. (3) Row group differences for cost, yield and profit were not significant. (4) Soil group differences for both yield and profit were significantly higher at the .01 level on the better soils. (5) There were no differences in cost, yield, and profit among the four week control methods. (6) Yield and profit varied significantly from year to year. (7) There was a significant relationship of selected corn growing practices to cost, yield, and profit.

HARGRAVE, HARVEY M., "School, Family and Student Characteristics Related to Continued Enrollment in Agriculture in North Carolina Rural High Schools. Thesis, D.Ed., 1971, The Pennsylvania State University. 148p Library, The Pennsylvania State University, University Park.

Purpose--To discern selected school, family, and student characteristics of boys that are associated with continuous enrollment in agriculture from ninth to twelfth grade and to provide pertinent information for vocational educators to use in the student evaluation and counseling process.

Method--Six rural high schools in the Piedmont area and six in the Coastal area of North Carolina were randomly selected. Three schools in each geographic area were predominantly white and three were Negro schools. Of 237 boys who had been enrolled in agriculture in ninth grade 131 continued in agriculture and 106 discontinued sometime before the twelfth grade. The data schedules were administered by the investigator in group interviews with the 237 students in twelfth grade in 1969-1970.

Information regarding SAT scores, class rank, and type of post-high school educational institution each student was qualified to attend was obtained from guidance counselors. Principals furnished the data on school characteristics. The family and student information was obtained from each boy. Relationships among the variables were tested by chi square, correlation, factor analysis and analysis of variance at the .05 level of significance.

Findings--There was no difference in proportion of students in the Piedmont and Coastal areas who continued in enrollment in agriculture. More boys in the predominantly Negro schools discontinued enrollment in agriculture before twelfth grade.

More students who continued in agriculture were in social classes I, II and III as measured by Hollingshead's Two Factor Index of Social Position in which the scales are for precise occupation and years of formal schooling of the head of household. More continuing students were from families with incomes over $7000. More parents of continuing students were active in their enrollment decisions.

More farm boys continued in agriculture. More who continued were in the lowest two fifths of their class. The continuing students had higher leadership participation scores and more of them had part-time agriculture-related work experience.

No differences in the measure of lack of belongingness (personal disorientation, anxiety, and social isolation) or of educational orientation (belief that formal education produces personally beneficial outcomes) were found. The continuing students placed higher value on completing high school and predominantly intended to enroll for two-year post-high school education.

HARTLEY, RICHARD S., "First Year Campers' Attitude Toward West Virginia County 4-H Camps and its Relationship to the Educational Objectives of the 4-H Camping Program." Problem, Master of Agriculture, 1970, West Virginia University, 69p. Library, West Virginia University, Morgantown.

Purpose--The purpose of this study was to: (1) determine the first year campers' attitude toward a 4-H camp and (2) determine if the county 4-H camps of West Virginia were fulfilling the educational objectives of the 4-H camping program.

Method--The data for this study were collected by using a questionnaire completed by 707 first year campers in seventeen county 4-H camps throughout the State of West Virginia. Results of this study were processed and tabulated at the West Virginia University Computer Center and the chi square statistic was used to determine significant differences among responses.

Findings--The following conclusions were drawn from this study:

The attitude of first year campers toward the county 4-H camping program was highly favorable.

Young campers were more favorable toward the existing camp program than older campers.

The youth were better served as separate units in younger camps and in older camps than when they are in mixed camps.

According to the responses of the first year campers, no difference due to the effect of type of county (rural, urban) or sex occurred at any constant significance within each type of camp (younger, older, mixed).

The educational objectives were being fulfilled by the 1969 county 4-H camps according to first year campers.

Additional planning of the camping program is needed to provide today's youth with a program to which he is able to commit himself with a lasting dedication.

There are indications from first year campers that the 4-H Club Program is mainly serving the youth of the middle class.

HERMAN, BASS., "Identification and Classification of Skills Needed by Employees in the Meat Industry," 1971, Rutgers University, New Brunswick, New Jersey.

Purpose--The major purpose was to identify the skills and competencies needed by employees in the wholesale and retail meat industry, and to determine which of these skills employers thought should be taught to students of vocational agriculture at the high school level. Minor purposes were to identify job titles in the wholesale and retail meat industry; list skills and competencies employers were willing to teach students in a cooperative occupational experience program; and list skills and competencies needed as perceived by employees of the meat industry.

Method--A list of skills and competencies required for employment in the meat industry was developed. The list was reviewed during personal interviews with twenty-five retail and twenty-five wholesale managers or owners of meat businesses. One employee from each business establishment was also interviewed. Interviewees were asked if each skill on tne list was important, desirable, or not important. Interviewees also indicated whether they were willing or not to teach the skill or competency in a cooperative occupational experience program. Skills were categorized under three job titles within the wholesale and three job titles within the retail meat trades. The job title, "meat clerk", was applicable to the retail trade only; and the job titles, "meat cutter" and "sales person, food", were applicable to both.

Findings--Fourteen skills and competencies were common to both the wholesale and retail meat industry. Forty-seven skills and competencies were specific to the retail trade; twenty-nine were specific to the wholesale trade. Twelve of the fourteen skills and competencies common to both the wholesale and retail meat industry were considered important or desirable by managers or owners; forty-two of the forty-seven specific to the retail trade were important or desirable; and twenty-six of the twenty-nine specific to the wholesale trade were important or desirable. Employers generally agreed with employees on skills necessary but rated them somewhat lower. Except for three of the skills listed (driving a motor vehicle, repairing equipment, and sausage stuffing) employers were willing to assist in the further training of students on-the-job for employment in the meat industry.

The skills and competencies with "important" and "desirable" ratings in this study are recommended as a basis for a course of study in meat cutting. It is recommended that the general skills be taught prior to teaching the skills specific to the wholesale or retail meat trade. High school programs in meat cutting should include cooperative occupational experience programs.

HERR, ROBERT D., "Effectiveness of a Program of Agriculture in Elementary Schools with Emphases on Safety, Sanitation and Conservation." Thesis, D.Ed., 1971, The Pennsylvania State University. 192p Library, The Pennsylvania State University, University Park.

Purpose--To evaluate the effectiveness of a program of agriculture in the elementary schools in terms of change in pupil interest, attitude and knowledge. To determine which of three teaching methods achieved the greatest improvement in these areas. To present guidelines and recommendations for the development of an elementary agriculture program.

Method--A resource unit was developed for a program of agriculture in the elementary schools by a subject matter specialist. A total of 539 sixth graders participated in the study conducted throughout the entire 1970-71 school year. The pupils were divided by class into four treatment groups or teaching methods as follows: (1) Subject matter specialist using the resource unit; (2) Homeroom teacher using the resource unit; (3) Homeroom teacher using no resource unit; and (4) No formal program of any type. All groups except the fourth received a minimum of one hour per week instruction in the program of agriculture.

The criterion measures were: (1) the Kuder E General Interest Survey; (2) An Attitude Game based on a semantic differential; and (3) the Agricultural Science Achievement Test. Statistical procedures used were the correlated t test and analysis of covariance.

Findings--A program of agriculture in the elementary schools does effect significant changes in attitude and knowledge, but not in interest. Method A, the subject matter specialist using the resource unit, had significantly higher pupil scores in knowledge than pupils in Method B where the homeroom teacher using the resource unit conducted the program. There were no differences in attitude or interest.

In Method B, pupils had significantly higher scores in knowledge and attitude than pupils in Method C where the homeroom teacher using no resource unit conducted the program. Pupils in Method C had significantly higher knowledge scores than pupils in Method D.

Findings indicate that the program is effective in changing attitude and increasing knowledge, but has little effect on interest. The resource unit was found to be a valuable tool in implementing a program of this type.

ISHLER, JOHN V., "Dairy Cattle Sire Evaluation." Paper, M.Ed., 1971, The Pennsylvania State University. 70p Library, The Pennsylvania State University, University Park.

Purpose--To develop, field test, and disseminate an instruction unit for young adult dairy farmer classes. The information and learning activities are aimed to increase ability to raise milk production and dollar income and to improve type through wise decisions in mating selected sires with individual cows.

Method--The first draft of an outline for the course provided for two class sessions on genetics and production records and two on practical aspects of artificial insemination. In this form, one young farmer class was taught with University specialists as resource persons. A significant outcome was the evident desire of the dairymen for further instruction by way of individual breeding program consultation.

The next action was the writing of a student information manual with references, visual aids, worksheets and other suggested learning activities. Six problem areas (topics for class sessions) are included: Introduction to Dairy Cattle Sire Evaluation, Standardizing Production Records, Herdmate Comparisons, Predicted Difference, Repeatability (reliability), and Sire Recognition.

An inservice class of fifteen teachers of agriculture took the course to learn how to teach it. Six two and one half hour sessions were used. Evaluations by the teachers, by University and A.I. resource persons, and additions from certain very recent advances in sire summary procedures influenced the content of the publication now available for schools to use.

Findings--Interest and need for knowledge of sire summary procedures in dairy cattle breeding are increasing. Important concepts such as herd-mate-daughter comparisons from standardized peoduction records and predicted difference and repeatability as measures of a sire's ability to increase production and improve physical type of offspring can be learned. Results are worth the study and the costs.

Both teachers and dairy farmers appreciate assistance in interpreting sire evaluation data used in A.I. sire catalogs. Educational services of breed associations, bull studs, universities and USDA are available; educators working locally with dairy farmers can use the publication developed in this study to establish working relationships among the agencies as, together, they help dairymen to keep pace with the technology of sire evaluation.

KELLY, WILLIAM H., ROSS, RAYMOND J. and JOHNSON, LEONARD. "Vermont Manpower Needs and Entry Job Requirements for Selected Occupational Clusters", 1971, Vermont Agricultural Experiment Station, Project No. 148, College of Agriculture and Home Economics, University of Vermont, Burlington, Vermont 05401.

Purpose--This project represents the first phase in the development of a procedural model to aid occupational education personnel plan specific training programs. This phase consisted of determining the current and projected employment needs in the areas of Health Occupations, Quantity Food Trades and the broad area of Trade and Industrial Occupations as utilized by Vermont manufacturers.

Method--A questionnaire was developed and mailed to 1,400 Vermont employers. A follow-up questionnaire was sent in every instance when necessary. A total of 597 questionnaires were returned, yielding a 42.6% response.

Findings--The data was summarized and classified according to occupational cluster and geographical region starting with counties, three county groupings and statewide.

The data was interpreted in terms of the relative relationship of one occupational area to another and not as absolute figures.

The occupational areas which indicate the greatest opportunity for future employment, and where the necessary entry level skills and knowledge can be provided by vocational education, were: practical nurse, nurse's aide, custodians, machine tool trades, waiter, waitress and undefined non-skilled factory jobs.

The researchers believe it is very possible that some of these occupational areas offer employment opportunities because there is a shortage of qualified personnel and for other areas it is due to the frequent turnover of employees.

KESSINGER, CLISBY THEODORE., "Ascertaining Topics for a Unit of Instruction on Farm Law for the West Virginia Vocational Agriculture Teacher." Thesis, M.S., 1971, West Virginia University, 187p Library, West Virginia University, Morgantown.

Purpose--The purposes of this study were to determine the extent of the need for a unit of instruction of farm law and the articles of law that would be incorporated into the unit.

Method--Data were obtained by means of a questionnaire mailed to ninety-six teachers of vocational agriculture in West Virginia. The questionnaire was open-ended and contained twenty-four topics of law from which the participating teacher was to check the ten he considered the most important.

Findings--The results of the study indicated that a unit of instruction on farm law was needed and that the twelve topics considered most important were: deeds, liability, wills, livestock laws, transferring property, contracts, parent-son agreements, farm leases, hunters and trespassers, right of ways and eminent domain, motor vehicle laws, and line fences.

As a result of the study, the writer compiled a unit of instruction on law covering eleven of the twelve topics considered the most important.

KOBLE, DANIEL E., "A System for Teacher Evaluation to Promote Desirable Changes in Secondary Education Programs of Delaware Public Schools." Thesis, D.Ed., 1971, The Pennsylvania State University. 140p Library, The Pennsylvania State University, University Park.

Purpose--To conduct the first phase of a state-funded longitudinal research project, the five phases of which are: (1) development of procedures for using and interpreting standardized inventories of teacher characteristics, (2) using teacher goals (behavioral objectives) as a basis for evaluation, (3) applying psycho-dynamic techniques of evaluation, (4) probing the use of students, parents, and peers as evaluators, and (5) exploring closed-circuit television in teacher self-appraisal.

Method--The tests were the Minnesota Teacher Attitude Inventory, the Purdue Teacher Morale Opinionaire, and the Personal Orientation Inventory. Included were 366 teachers in all of the academic and vocational subject areas of 19 public secondary schools in the State of Delaware in 1967-68. The schools were randomly selected from a stratified grouping of all Delaware schools arranged by function.

Short-form rating scales were constructed from item areas in each of the three standardized tests. Thirty principals in the 19 schools used these instruments to rate each of their teachers. Relationships with the teacher test scores and other characteristics were determined by factor analysis, zero order correlation, analysis of variance, and canonical correlation.

Findings--Forty-four percent of all teachers in the 19 schools volunteered for the testing with understanding that the information would be used in consultation with their principals to enable them to do a more effective job of instruction. This large response led to the conclusion that teacher evaluation systems can include a variety of assessment methods and techniques. It is important that the principal or supervisor understand the personality, background of experience, philosophy and goals of each individual teacher he is assisting through evaluation. The human element cannot be divorced from an analysis of the instructional process or curriculum. Secondary school principals generally did not know their teachers well enough to separately predict attitude, morale, or personality. Canonical analysis found significant association among groups of items from the three teacher tests and the principal ratings.

There were significant differences in attitude, morale, and personality among teacher groups classified according to sex, chronological age, and subject taught. It was found that female teachers were more satisfied in teaching than were their male peers. Older teachers had higher overall morale scores. Instructors in the social studies and student service personnel (guidance, etc.) tended to be more student or learning process oriented whereas teachers of mathematics and vocational subjects appeared to be more product or skill oriented.

LASAP, SOTERO L., "The Leadership Attitudes of Former National FFA Officers." Ph.D. Dissertation, Agricultural and Extension Education, University of Maryland, College Park, 1971.

Purpose--The main purpose of this study was to determine the effects of selected factors on the leadership attitudes of former national FFA officers.

Method--Two hundred twenty eight former national FFA officers from 1928 to 1970 were surveyed to secure data on their general characteristics, background and experiences in FFA and other organizations. In addition, the Leadership Opinion Questionnaire (LOQ) developed by Edwin A. Fleishman was also used to determine their leadership attitudes on Consideration and Structure. Consideration indicates good rapport, mutual trust and cooperation, and consideration for others while Structure is concerned with work facilitation dimension of leadership. One hundred twenty eight former national FFA officers returned usable questionnaires.

Frequency counts and measures of central tendency and dispersion were used in describing the general characteristics of respondents. The data was analyzed by the general characteristics of respondents and the effects of selected factors on the leadership attitudes.

Findings--An analysis of the characteristics of the respondents indicated that: (1) they moved up to the professional, technical, and managerial occupations compared to their parents who were mostly in farming; (2) their advisors had been most influential in the decision to join the FFA and become national officers; (3) former national officers perceived the FFA objectives -- those concerning leadership development, fostering citizenship and patriotism, and contributing to their development as individuals; (4) former national FFA officers were more active in the number of organizations joined in their communities at the time of the study; a majority actively participated in church activities, but not in PTA, school boards, and civil defense activities; (5) few could remember the committee they chaired in the FFA; and (6) their overall impression was that the FFA is less successful in meeting its objectives today than during the time of their membership.

Analysis of the effects of selected factors on leadership attitudes indicated that: (1) the following variables have a negligible or non-significant effect on leadership attitudes of former FFA officers: office held, decade office was held, occupational grouping, schooling, size of community where reared, marital status, size of chapter, membership in organizations, extent of participation in community activities, and adequacy of leadership training in the FFA. Those who came from larger graduating classes tended to have lower scores in both Consideration and Structure.

LEGACY, JAMES W., "A Model for Task Analysis in Agribusiness. Thesis M.S., 1971. Cornell University. 182p. Library, Cornell University, Ithaca, New York.

Purpose--The study is designed to develop a procedural model for task analysis in the ornamental horticulture area of agribusiness. It is hoped that future research will show that this model may be adapted for task analysis in other areas of agribusiness.

Method--The types of ornamental horticulture businesses were identified through ornamental horticulture trade organizations in New York State, Division of Employment SIC Code Lists, and registry lists from the New York State Division of Agriculture and Markets. Functions, tasks, performance conditions, and performance levels for each business were developed then validated with ornamental horticulture experts. After stratifying businesses by SIC Code and size, a sample of the population was identified by horticulture extension agents. Interviews were then conducted with the selected businesses.

Findings--The testing of the preliminary model in the ornamental horticulture study resulted in task analysis data. While all aspects of the model as developed are necessary, seven critical aspects of the model were identified.

The recruitment instrument developed from the task analysis procedure in ornamental horticulture consists of two documents, the Worker Recruiter's Guide used to give a general description of the nature of work in any of the nine business areas identified in horticulture and the Employer's Guide consisting of a list of tasks identified by the analysis procedure.

The employer uses the document to check the tasks his prospective employees will perform, then checks the task elements that best describe overall conditions in which the new employee will perform the tasks. An employment agency or worker counselor then uses this data to match prospective workers and jobs in ornamental horticulture.

LEMOI, EDMOND J., "Personal Learning Experiences Gained From Leading a Class Through the Industrial Process of the Woodworking Industry." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 26p. Department of Education, University of Rhode Island, Kingston.

Purpose--This supervised field practicum was planned to provide the writer an opportunity for gaining experience in: (1) developing and administering a questionnaire, (2) interviewing people in the wood-working industry, (3) presenting a wood-working course based on the results of the questionnaire and interview.

Method--The following procedure was used: (1) a questionnaire was developed and mailed to eighty wood-working manufacturers, (2) four interviews were conducted with presidents of wood-working manufacturing companies, (3) a course based on the results of the questionnaire was presented to a group of students.

Findings--The writer was successful in meeting his practicum objectives. The writer gained experience in techniques used in developing and administering a questionnaire. Personal interviewing of presidents from the wood-working industry provided the writer with the personal growth that he had expected. The writer was successful in obtaining information he needed to plan and present the wood-working course.

In addition to the learning experience, the writer had acquired information that will be helpful in revising the present Industrial Arts Curriculum at Cranston High School.

LOUGHRY, ROBERT J., "Paraprofessionals in Occupational Education: an Innovation in a Non-Urban High School." Thesis, D.Ed., 1971, The Pennsylvania State University. p. Library, The Pennsylvania State University, University Park.

Purpose--Through a process of job analysis and observation, answers were sought for these questions: (1) What are the required characteristics of persons to serve as teacher aides in vocational agriculture? (2) What are the routine technical duties which may be assigned to teacher aides in vocational agriculture? (3) What are the specific technical duties which may be assigned to teacher aides in vocational agriculture in Pennsylvania where a given unit of instruction is being taught? (4) How should the role of the teacher of vocational agriculture change when a teacher aide is involved in the instructional program?

Method--Records of tasks performed by the teacher aide employed in 1970-71 in the Fort Cherry High School, McDonald, Pennsylvania were kept on forms titled the Diary of Teacher Aide Skills for Vocational Agriculture. These records combined with observation records kept by the teacher, school administrators, and the investigator were used to answer the above questions. In addition, a unit of study, Quality Milk Production, published by the Department of Agricultural Education, The Pennsylvania State University, was analyzed to determine which specific tasks could be performed by the teacher aide. The assignments were made, the unit was taught, and detailed diary records were kept.

Findings--The teacher aide performed 31 different non-instructional tasks and 20 different instructional tasks. The decision was made that many instructional tasks could be assigned to the teacher aide provided the work was done under the supervision of the teacher. Administrative decisions may be made in advance to provide for assigning specific instructional and non-instructional duties to the teacher aide when a given unit of instruction is to be taught.

The main conclusions were: (1) The teacher aide should have the ability to relate to people. (2) The intelligence of the teacher aide should be well above average. (3) A farm background for a teacher aide in vocational agriculture is important. (4) The teacher aide in vocational agriculture should have demonstrable mechanical skills. (5) The teacher aide would benefit from training in clerical skills. (6) The teacher aide could do almost all of the non-instructional tasks of the department of vocational agriculture. (7) The teacher aide could be involved in the instructional processes with the teacher of agriculture supervision. (8) The role of the teacher of vocational agriculture will change in desirable ways when he has a teacher aide on his staff.

MCFARLAND, ROBERT T., "Personal Learning Experiences Gained While Administering and Evaluating a Questionnaire on the Future Use of Marine Wetlands Around Shinnecock Bay (West) in Southampton Town." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 88p. Department of Education, University of Rhode Island, Kingston.

Purpose--The purpose of this practicum was to provide the writer with an opportunity for gaining experience in the following: (1) Designing and constructing a questionnaire to obtain information on wetland use around Shinnecock Bay (west), Town of Southampton, New York. (2) Administering a questionnaire. (3) Analyzing, evaluating and interpreting a questionnaire.

Method--The following procedures were used: (1) Researching textbooks so as to be better able to construct and administer a questionnaire. (2) Selecting a random sample of names from the tax rolls of the Town of Southampton and preparing the questionnaire for mailing with return envelopes. (3) Constructing graphs from the replies of the questionnaries to evaluate and interpret the information that will be meaningful.

Findings--As a result of the project the writer gained experience in designing and construction a questionnaire. The writer also increased his ability to analyze, evaluate and interpret a questionnaire.

O'CONNOR, DAVID JOSEPH, "Early School Leaving Among Future Farmers in Ireland." Thesis Ph.D., 1971, Cornell University. 138p Library, Cornell University, Ithaca.

Purpose--The purpose of the study was to determine the extent to which the problem of early school leaving exists among young future farmers in Ireland and to discover the reasons for it and the reasons why very few young future farmers attend agricultural schools (where a one year residential course in vocational agriculture is offered).

Method--Time and money constraints dictated a case study approach. One county -- Offaly -- was selected. All the young future farmers who had left school in a three year period just before the study was conducted, were interviewed by the writer, as were their parents. The names of the boys were supplied by school principals. It was hypothesized that six factors would be found to be associated with early school leaving. Goodman and Kruskal's Gamma was used as a measure of association; the observed association was tested for significance.

Findings--One hundred and fourteen boys and ninety-three parents/sets of parents were interviewed. One third of the boys had had primary schooling only; only one in nine boys had more than three years post primary education. Two thirds of them were satisfied that they had enough education. Four factors -- unfavorable economic conditions on the home farm, low academic ability, frequency of absence from school and unfavorable parental attitude to education were found to be associated with early school leaving. Dissatisfaction with school subjects was slightly associated with early leaving but boys' attitude to education was not found to be associated with school leaving time. This was attributed to insensitive measures. There was widespread lack of knowledge about agricultural schools.

Practical subjects were more popular than academic type subjects and there was considerable demand for the introduction of agricultural/rural science.

PARK, MAX ELLSWORTH, "A Study of the Veteran-Trainees Who Were Enrolled in Institutional On-Farm Training in Hardy County." Problem, M.S., 1971, West Virginia University, 75p Library, West Virginia University, Morgantown.

Purpose--The purpose of this study was to determine how effective this study was to determine how effective the Institutional On-Farm Training Program had been in Hardy County, West Virginia.

Method--Data for this study were obtained by a questionnaire sent to veteran-trainees in Hardy County who had been enrolled in the Institutional On-Farm Training Program. The questionnaire covered many phases of agriculture and rural living as well as questions concerning living conditions. Fifty veteran-trainees responded to the questionnaire.

Findings--The study revealed that eight of the veteran-trainees were farming full-time, but not as trained.

Six of the veteran-trainees were employed in agriculturally related occupations; thirteen were farming part-time, but not as trained; and eighteen were employed in occupations not related to agriculture.

Thirty-nine trainees lived on farms and eleven off the farm. Five were retired due to health or age.

The reasons stated by trainees for leaving the farm varied. Twenty-six left due to low income. Twelve remained on the farm because they like to farm and six remained due to investment.

The size of farm units increased from 1954 to 1969. Seventeen trainees owned an average of 104.2 acres per man in 1954, while the average acreage owned by each of twenty-four trainees had increased to 267.4 acres by 1969.

Full-time farming trainees owned an average of 419.8 acres of land. Part-time farming trainees owned an average of 121.7 acres of land.

Many major improvements had been made, but the general condition of the farm buildings had not improved. Soil conservation practices had been used extensively to improve their farms.

The numbers of beef cows, ewes, feeder lambs, feeder cattle, feeder hogs and sows showed an increase. The production of boilers increased, while the production of turkeys and breeding hens was practically eliminated.

The acreage of corn, wheat, oats, rye, barley, buckwheat, and clover increased, while production of timothy, orchard grass, and mixed hay decreased.

Home improvements were made by most veteran-trainees which indicates an improvement of the level of living of the trainees.

PATTERSON, GORDON D., SR., "Effect Of Teacher Attitudes on Student Occupational Success." Dissertation, Ph.D., 1971, University of Maryland. 106p Library, University of Maryland, College Park, Maryland.

Purpose--The purpose of the study was to test the following hypotheses: (1) Students experience greater subsequent occupational success when taught by teachers with more positive attitudes toward the world of work, vocational education, teaching, and students. (2) Students experience greater subsequent occupational satisfaction when taught by teachers with more positive attitudes toward the world of work, vocational education, teaching, and students.

Method--Positive and negative attitude teachers included in the study were selected on the basis of their expressed attitudes as perceived by teacher educators and/or supervisors of agricultural education in their respective states.

The sample consisted of 53 teachers in a four state area which included Maryland, Virginia, Pennsylvania, and Delaware. The total number of teachers included in the analysis was 35--20 teachers considered to have positive attitudes, and 15 teachers considered to have negative attitudes toward the world of work, vocational education, teaching, and students.

The former student sample consisted of 71 former students of the positive and negative attitude teachers who had at least three years of vocational agriculture with the teacher, had not been out of school more than one year, and who were working in a non-farm occupation. A total of 28 former students were included in the analysis, 19 from the positive group of teachers, and nine from the negative group of teachers. Those former students responding completed the Job Descriptive Index, which was used to measure their occupational satisfaction.

Occupational success was measured through the use of supervisor ratings of the former students' performance by their immediate job supervisor. The supervisor sample contained 28 job supervisors of the former students. A total of 22 supervisor ratings were included in the analysis, 15 ratings on former students of positive attitude teachers and seven ratings on former students of negative attitude teachers. Data analysis was through the use of descriptive statistics, t-test, and the Mann-Whitney U test.

Findings--(1) Negative attitude teachers were older, had been teaching vocational agriculture more years, and were, in general, in schools with lower enrollment. (2) Teachers in the positive group offered students a more diversified vo-ag program. (3) The average number of jobs held since graduating from high school was greater for the former students of positive attitude teachers.

PAUL, PRODEEP KUMAR., "A Comparative Study of Vocational Agriculture in India and the United States of America." Problem Report, Master of Agriculture, 1971, West Virginia University, 174p. Library, West Virginia University, Morgantown.

Purpose--The purpose of this study was to make a comparison of vocational agriculture in India and the United States of America. An attempt was made to determine and ascertain the direct influence of socio-economic factors which led to the establishment and development of vocational agriculture education in the United States and possible reasons and causes for the vocational agriculture system not being adopted in India.

Method--The method employed in this study was the historical-analytical technique. Sources for this data included the following categories of documents: (1) Government monographs, bulletins, and study reports pertaining to vocational agriculture in U.S.A. Similar documents of the Indian government, as well as reports and investigations conducted by central government, State governments and Inter-governmental studies pertaining to the subject. (2) Official studies and reports on agricultural education conducted by International Agencies like USAID and UNESCO. (3) The newspapers, journals, yearbook, charts, and maps issued by various agencies. (4) Articles, textbook, journals, reports, doctoral dissertations and bibliographics by private and professional agencies and organizations related to agricultural education.

Findings--Vocational Agriculture in India was introduced into the educational system at the primary level by including agriculture as a basic craft. Most of the rural states include agriculture as a basic craft; while in the more urban states it is found in less than a quarter of the basic schools.

A variety of courses are offered at the secondary level. Students who have completed the basic craft education are given vocational training with the objective of preparing them as practical agriculturists. The schools are well staffed and equipped by the chief objective of training students to go back and work the land is chiefly unrealized.

In other high schools courses in agriculture are offered either to fulfill the requirements of introducing a craft or as one of the subjects which can be elected to fulfill the requirements for matriculation.

Agriculture is offered as one of the majors in multi-purpose high schools. Those students who choose agriculture have two options before them - one course which is vocationally oriented. Both options have some course work that all students take.

The author feels the physical facilities and potentials exist and the real need is in the area of coordination of these facilities. Guidance and placement of students who take a vocational agriculture course in necessary.

ROBINSON, BOYD F., JR., "Gatekeepers In Vocational Education." Thesis, M.S., 1971, University of Maryland, College Park, Maryland, 132p Library, University of Maryland, College Park, Maryland.

Purpose--The purpose of this study was to investigate some of the factors associated with the selection of publications by Maryland County Supervisors of Agricultural Programs for dissemination to Maryland vocational agriculture teachers.

Method--The population and sample of the study consisted of all Maryland County Supervisors of Vocational Agricultural Programs and all Maryland vocational agriculture teachers. A total of 51 of the 68 vocational agriculture teachers and 17 of the 24 county supervisors were included in the study. Copies of a number of publications relating to vocational agriculture were mailed to the county supervisor. Three weeks later vocational agriculture teachers provided information regarding which of the publications they received from their county supervisors. A telephone interview with the supervisors yielded their opinions regarding selected factors of the publications. The selected factors were the personal source, the organizational source, the general content, and the relative importance of the publications. Non-parametric measures of correlation, concordance, and exact probability were used in the analysis of data.

Findings--The county supervisors did not differ significantly in the extent of their dissemination of publication by the selected characteristics of age, background education, type of teaching experience, or years of supervisory experience. The supervisors were apparently aware of the types of information needed by vocational agriculture teachers. There was a significant (.05 level) correlation between the supervisors ranking of the general content and the relative importance of publications. No other significant correlations were found between the ranking of the other selected factors of the publications. The county supervisors tended to agree among themselves regarding their rankings of the personal source, the organizational source, and the general content of publications. No significant relationship was found between the supervisors ranking of a set of publications and their dissemination of those publications. Other findings were that of the personal sources and organizational sources of publications. The county supervisors prefer state level sources to university level sources and university level sources to national level sources.

ROJAS, JAFETH GARCIA, "A Proposed In-Service Program for Teachers of Vocational Agriculture in Colombia." Thesis, M.S., 1971, Cornell University. 77p. Library, Cornell University, Ithaca.

Purpose--The study was undertaken to attain the following: (1) To summarize the nature of the in-service education program for vocational agriculture teachers in Colombia from 1941 to the present, (2) To identify the training needs of in-service teachers of vocational agriculture, (3) To determine the types of in-service programs to be conducted, (4) To determine where the in-service programs should be conducted, and (5) To determine who should conduct the in-service education program.

Method--Data were collected through the use of mailed questionnaires completed by a random sample of 67 vocational agriculture teachers and by 10 national officials and supervisors of vocational agriculture in Colombia.

Findings--The major findings were that: (1) Seventy-four point five per cent of the teachers had two years of vocational agriculture, (2) Fifty-nine point six per cent of the agriculture instructors had taken a five-year curriculum in the teacher-trainer centers of Colombia, (3) No teacher had obtained a B.S. Degree. In fact, 80.5 per cent of them had not had any years of college preparation, (4) Forty-three point two per cent of the agriculture teachers taught all-day class students, exclusively, (5) Since the program of vocational agriculture was started in 1941, 74.5 per cent of the teachers had attended an average of 25.1 days of in-service training in agricultural education, (6) Ninety-one point two per cent of the teachers rated as "very useful" the non-collegiate courses in which they participated, (7) Over 66.0 per cent of the instructors rated as "great" their need for training in technical subject matter courses, (8) Sixty-five point five per cent of the in structors manifested "great need" for imprevement in the area of supervised farming programs, (9) Evaluating farming programs and using different teaching methods were the areas in which 71.5 per cent and 61.1 per cent respectively of the instructors reported great need for training, (10) Sixty-four point one per cent of the teachers manifested willingness to attend summer courses of two-month duration, (11) The Agricultural Research Center, ICA, in Bogota, and the colleges of agriculture in Bogota and Medellin were the educational centers chosen by officials and supervisors as having the best qualified staff to teach agriculture. Similarly, the Agricultural Research Center, ICA, and the School of Veterinary, both in Bogota, were selected by the same respondents as the ones having the most qualified staff to teach animal husbandry courses, and (12) Finally, officials and supervisors selected the College of Agriculture in Palmira and the Agricultural Technical Institute of Buga, as the centers having appropriate physical facilities for in-service teacher education activities.

ROUNDS, FREDERICK M., "Personal Learning Experience Gained in Conducting a Feasibility Study of a Checker-Education Program at Rhode Island Junior College." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 33p Department of Education, University of Rhode Island, Kingston.

Purpose--This practicum was planned to provide the writer with an opportunity to gain experience in: (1) studying the techniques of constructing, and actually using a questionnaire, (2) gaining experience in a sampling technique, (3) gaining experience in interviewing chain-store management, and (4) gaining experience in searching the literature in this particular area.

Method--The following procedures were used: (1) permission was obtained to conduct the practicum from the Vocational-Technical Division of Rhode Island Junior College, (2) reviewing the literature and research textbooks which deal with the construction and administration of questionnaires, (3) exploring research textbooks which deal in various sampling techniques, (4) actual experience in conducting interviews on a one-to-one basis, (5) a search of the literature pertaining to checker education programs already in operation, and (6) a search of the literature on chain-store for checker-cashiers, checker-cashier turn-over, and educational requirements for job placement.

Findings--Three of the four objectives stated in the proposal for this practicum were achieved. The writer gained a great deal of experience in the various techniques used in constructing and administering a questionnaire. Actual experience was gained in selecting a sampling technique. Personal interviewing of chain-store management did not attain the expectations for personal growth the writer had desired. The review of the literature proved successful in supplying statistical data and information pertaining to existing checker-education programs.

As a result of this practicum the writer recommends further investigation regarding the feasibility of such a program at this time. Analysis of the information obtained from the questionnaire should be studied in depth. Consideration of the economic climate of the State of Rhode Island should also be analyzed along with the future growth potential of the chain-store supermarkets.

SCANLON, DENNIS C., "The Effect of Storage Temperature, Specific Gravity, and Reducing Sugars on the Chipping Quality of Kennebec Potatoes Grown in Cambria County." Paper, M.Ed., 1971, The Pennsylvania State University. 35p Department of Agricultural Education, The Pennsylvania State University, University Park.

Purpose--To investigate the effect that storage temperature, specific gravity, and reducing sugars had on the quality of Kennebec potatoes, especially those used for potato chips. The ultimate aim of this paper was to educate Cambria County potato growers regarding these quality factors and the ways and means of controlling them.

Method--Information concerning specific gravity, storage temperature, and reducing sugars was gathered weekly for ten weeks from thirteen potato producers in Cambria County. On each weekly visit, the temperature of the storage facility was recorded. Sugar level, pulp temperature, and specific gravity of the tubers were determined.

In addition, the growers kept a daily record of temperature. Each week samples of potatoes were taken to the laboratory where the tubers were individually checked for specific gravity, sugar content, and pulp temperature. After all the necessary checks were made, the potatoes were sliced and fried for color ratings.

Pulp temperatures were determined with an approved USDA pulp thermometer. Reducing sugar level was determined with the Elanco Chip Color Testing Tape. Specific gravity was determined by using a potato hydrometer.

The data were processed by the Examination Services and Computer Center of The Pennsylvania State University.

Fry test color ratings were based on the Potato Chip Color Reference Standard chart supplied by the Potato Chip Institute International.

Findings--There was no correlation between storage temperature and fry test color rating. Specific gravity proved to be a reliable estimate of yield of potato chips per hundred pounds of raw potato chips processed; however, it proved to be an unreliable indicator of potato chip color. Reducing sugar content directly influenced the fry test color rating of the potatoes, the indicator of quality of the fried potatoes.

Sugar accumulation appears to be a result of cultural practices such as fertilizing, harvesting, and other growing conditions, as opposed to environmental conditions in the storage facility.

SEAL, KENNA RUSSELL, "Determining Behavioral Vocational Objectives in Farm Power and Machinery For Vocational Agriculture Teaching." Thesis, M.S., 1971, West Virginia University, 104p Library, West Virginia University, Morgantown.

Purpose--The purpose of this study was to determine vocational behavioral objectives in the farm power and machinery phase of agricultural education.

Method--Data for this study were obtained with a questionnaire listing thirty-two objectives which were based on competency studies and previously accepted objectives in agricultural mechanics. A total of 104 questionnaires were sent to vocational agriculture teachers, state supervisory staff and agricultural education staff in West Virginia asking for responses to the appropriateness and difficulty level of each objective. The results were computed through the facilities of the West Virginia University Computer Center.

Findings--The writer concluded that all of the objectives in the questionnaire were appropriate and could be used for the development of a course of instruction in farm power and machinery. The difficulty level of the objectives showed some variation, but for the most part were at a reasonable level and attainable by high school students.

Behavioral objectives determined by this study could be used as terminal objectives from which to develop lower level enabling objectives. Course content and evaluative devices could be selected based on the skills and competencies to be demonstrated in performing the behavioral objectives.

It was concluded that the behavioral objectives specified in the study, included some of the skills and abilities that were necessary for entry and advancement in farm power and machinery occupations.

STINSON, RICHARD F., DAVID R. McCLAY, and GLENN Z. STEVENS, "Development and Evaluation of Instructional Units in Ornamental Nursery, Floriculture and Turf Occupations for High School Students and Adults in Northeastern United States." Staff Study, Department of Agricultural Education, The Pennsylvania State University, 1971. Final Report, Contract No. OE-5-85-014, Bureau of Research, U.S. Office of Education, Washington, D.C.

Purpose--To (1) develop instructional units for teacher and student use for ornamental horticulture occupations, (2) to conduct workshops to improve the competence of teachers of high school youth and adults in these occupations, (3) to prepare suggested course outlines, and (4) to prepare a publication of recommended facilities and equipment for teaching ornamental horticulture in the Northeastern United States.

Method--Existing programs in ornamental horticulture were observed, available publications were examined, and persons in ornamental horticulture businesses and University faculty in horticulture were interviewed to determine teaching materials needed. Preliminary drafts of instructional manuals were reviewed by an advisory committee.

Fifty-four teachers from 11 Northeastern States tested the instructional materials and participated in two training institutes conducted on the Penn State campus July 5-22, 1966 and July 3-21, 1967.

Final drafts of the publications were developed and published after revisions based on suggestions from teachers, businessmen, and horticulture faculty. Six slide sets were developed to supplement the publications.

Findings--The following publications and 2 inch by 2 inch color slide sets were produced.

Retail Flower Shop Operation and Management - A Teacher's Manual Teacher Education Series, Volume 9, Number 1t, 1968.

Retail Flower Shop Operation and Management - A Student Handbook Teacher Education Series, Volume 9, Number 1s, 1968.

Landscape Maintenance and Establishment - A Teacher's Manual Teacher Education Series, Volume 9, Number 2t, 1968.

Landscape Maintenance and Establishment - A Student Handbook Teacher Education Series, Volume 9, Number 2s, 1968.

STINSON, RICHARD F., DAVID R. McCLAY, and GLENN Z. STEVENS
CONT'D

Landscape Design - A Teacher's Manual
Teacher Education Series, Volume 9, Number 3t, 1968.

Landscape Design - A Student Handbook
Teacher Education Series, Volume 9, Number 3s, 1968.

Turfgrass Maintenance and Establishment - A Teacher's Manual Teacher Education Series, Volume 9, Number 4t, 1969.

Turfgrass Maintenance and Establishment - A Student Handbook Teacher Education Series, Volume 9, Number 4s, 1969.

Greenhouse Crop Production - A Teacher's Manual
Teacher Education Series, Volume 10, Number 3t, 1970.

Greenhouse Crop Production - A Student Handbook
Teacher Education Series, Volume 10, Number 3s, 1970.

Nursery Production - A Teacher's Manual
Teacher Education Series, Volume 12, Number 4t, 1971.

Nursery Production - A Student Handbook
Teacher Education Series, Volume 12, Number 4s, 1971.

Outlines of Courses in Ornamental Horticulture
Teacher Education Series, Volume 12, Number 1, 1971.

Facilities for Instruction in Ornamental Horticulture
Teacher Education Series Volume 12, Number 3, 1971.

A. Designing with Flowers and Decorative Materials - 63 slides
B. Exploring Turfgrass Occupations - 30 slides
C. Commonly Used Trees, Shrubs, Groundcovers, and Vines - 52 slides.
D. Turfgrass Identification - 30 slides
E. Types of Turf - 17 slides
F. Weed Identification - 37 slides

SUMMERS, ELVIN G., "Specialized Scheduling of Courses in Agriculture in the Juniata-Mifflin Counties Area Vocational-Technical School. Paper, M.Ed., 1971, The Pennsylvania State University. 68p Library, The Pennsylvania State University, University Park.

Purpose--To develop, utilize, and test in an actual classroom situation, a course of study that would allow each student to choose preferred units in each three or six-week period of the school year.

Method--Tenth, eleventh, and twelfth grade students in high schools in Juniata and Mifflin Counties attend the AVTS on a vocational half day basis where one of the two agriculture instructors teaches Agricultural Production and the other Agricultural Supplies and Horticulture.

For the 1970-71 year the program was arranged to have the classroom units in both occupational majors taught in parallel modules of three or six weeks in the first half of each attendance half day. In the second part of each half day one instructor offered an agricultural mechanics unit and the other supervised independent study of students not electing the mechanics module.

Individual student records of unit selections were carefully recorded and charted to show frequencies of crossing over from modules in one major to the alternative offered by the other instructor, thereby personalizing the individual student's total program.

Findings--Twenty-eight of 63 students utilized the opportunity to select alternative classroom units of their choice. Units most often changed for in the forenoon section were Program Orientation, Leadership Development, Animal Science, and Vegetable Plant Production. Several afternoon students crossed over to enroll in Hydraulics, Small Gasoline Engines, Farm Business Management, and Laws, Insurance and Taxes.

Ten or more students elected mechanics units in preference to independent study as follows: Basic Engine Fundamentals, Shop Tools and Equipment, Bill of Materials, Basic Oxyacetelyne Welding, Drawing Plans and Diagrams, and Painting and Refinishing. Eight students took a module on Electric Arc Welding.

Examples of independent study units selected were: Culture of Flowers, Horse Management, Dairy Cattle Management, Income Taxes, Public Speaking, the FFA, Electrical Wiring, and Environmental Education.

The new program was judged to have been successful by students, instructors, and administrators. With appropriate modifications, it will be continued in future years. It is anticipated that other departments in the school will schedule service modules that any student may elect.

WILKEN, ROBERT J., "Personal Learnings Experienced Through the Application of Adult Education Methods." Supervised Field Practicum, M.A., 1971, University of Rhode Island. 43p Department of Education, University of Rhode Island, Kingston.

Purpose--The supervised field practicum was undertaken to provide tha author the opportunity to learn leadership techniques which are effective in the instruction of adults at the graduate level.

Method--Dr. John Fallon of the Rhode Island Junior College and the author conducted a team-teaching effort using the graduate Education 580 course (Organizing and Administering Youth Programs) as the basis. Functioning as a graduate assistant, the author used the following procedures: (1) The writer used two selected techniques in his efforts to try and identify students' educational needs. (2) The writer experimented with verbal and non-verbal techniques for beginning class sessions, the author functioned as the group leader; Dr. Fallon functioned as an "in-class and out-of-class advisor." (4) The writer lectured to the students on selected topics. (5) The author exerted a concentrated effort to increase his listening ability. (6) The author compiled an evaluation questionnaire (objective type), distributed it to the students prior to the last class session, and asked them to complete it.

Findings--The writer was generally unsuccessful in his use of two selected techniques in an effort to identify the student's educational needs. This attempt was made early in the course and the writer's lack of confidence in his leadership ability, at that stage, prevented his use of effective leadership techniques. In addition, the regidity of his personality structure, at that stage, restrained effective group process.

The author was successful in all other attempts to meet his practicum objectives. These objectives refer to his intentions to gain experience in: beginning class sessions, leading class discussions, lecturing, listening more effectively and the development of and the use of an evaluation questionnaire. Despite some fluctuations, the author achieved an increasingly better trust level with the students as his leadership experiences accumulated over the class sessions.

The author believes that he has changed as a result of this learning experience. Changes he has noticed within himself are that: he feels he is better able to take constructive criticism, he feels more relaxed in a leadership role, he feels more comfortable in an unstructured environment, he is better able to accept people at different rates of personal growth and he has generally gained confidence in his ability to use group leadership skills.

WILSON, RUSSELL C., "Effectiveness of Teaching Basic Electricity to High School Students by Varied Class Time Sequences and Teaching Materials." Thesis, D.Ed., 1971, The Pennsylvania State University. 112p. Library, The Pennsylvania State University, University Park.

Purpose--To determine the effects of varied class time sequences and different teaching materials on student achievement in learning the basic skills and knowledge of applied electricity for the farm and home. Minor purposes were: (1) to determine relationships between student achievement and selected characteristics such as: place of residence, number and type mathematics and science courses completed, involvement in electricity, years enrolled in vocational agriculture, and grade level, and (2) to determine relationships between student achievement and the following selected characteristics of their teachers: amount of graduate work completed, age and years of teaching experience, involvement in electricity, and in-service education.

Method--Data for the study were collected by mailed questionnaire and personal visits to teachers of agriculture. Thirty-seven teachers taught a unit in basic electricity to 529 students in 11th and 12th grades. Teachers were randomly assigned to teach a unit of electricity two consecutive days each week or daily. Nineteen teachers used a resource unit prepared by the writer to teach the unit in electricity while 18 teachers used a one page teaching outline.

Findings--There was no significant difference in learning among students taught basic electricity daily and for two consecutive days each week by teachers who had completed an in-service education course in basic electricity. Students taught basic electricity daily by teachers who had not been enrolled in an in-service education course in basic electricity achieved significantly higher mean test scores than students who were taught basic electricity two consecutive days each week.

Mean test scores of students taught through the use of a resource unit were significantly higher than the mean test scores of students who were taught by teachers who were guided only by an outline of the unit.

No significant difference was found in adjusted mean test scores of students taught by teachers who received in-service education in basic electricity and the adjusted mean test scores of students who were taught by teachers who did not receive in-service instruction in the subject.

Student test scores correlated significantly with the total number of years of science and mathematics courses completed.

Teachers and students made significant gains in knowledge of basic electricity from pretest to test.

WITMER, T. DEAN, "An Appraisal of Public Secondary School Programs in Agriculture for Adults in Pennsylvania." Thesis, D.Ed., 1971, The Pennsylvania State University. 199p Library, The Pennsylvania State University, University Park.

Purpose--To analyze the characteristics of vocational education programs in agriculture for young adult farmers in the secondary schools of Pennsylvania and to determine the effectiveness of the programs in preparing persons to participate in community activities.

Method--To determine characteristics, scope, and trends of the programs, data were collected by mailed questionnaires from all 92 schools that had adult programs as an integral part of vocational agriculture and from 104 schools that did not have such programs. Means were computed, and rank order determinations were made based on weighted value scores.

To assess the attitudes of 228 school leaders concerning the value of educational programs in agriculture for adults, data from a survey questionnaire were analyzed using a modified Likert method for measurement of specific statements. Analysis of variance was used to test differences among attitudes of five groups of school leaders and community participation of students and non-students.

Findings--(1) Ninety-seven percent of the students were male, 80 percent of them were actively farming and their mean age was 38.4 years. (2) Farm management, plant science, and farm mechanics were the most popular course content areas most often being taught once per month and supplemented with short-term weekly classes. (3) The majority of teachers indicated that their personal efforts were the prime reason for their local young farmer organizations becoming affiliated with the state association. (4) Community needs and teacher commitment were the two major reasons indicated by teachers for conducting adult programs. The teacher required adequate time to develop a well organized, planned, and executed course relevant to student needs. Student leadership and on-the-job instruction were essential characteristics of successful programs. (5) The data indicated a trend toward more schools offering young-adult instruction in agriculture in the next five years with smaller enrollments per class but increased total enrollment for the state. Instruction in off-farm agricultural occupations will increase, demanding additional specialization on the part of teachers. (6) Eighty-five percent of the school leaders indicated that adult educational programs in agriculture were of significant importance in their schools.

YOKUM, ROBERT DENNIS, "The Role of Human Relations Skills in Vocational Agriculture." Thesis, M.S., 1971, West Virginia University, 76p Library, West Virginia University, Morgantown.

Purpose--The purpose of this study was to determine if selected human relations skills need to be taught to vocational agriculture students, and if so, when and by whom.

Method--Data for this study were collected by questionnaire. Of one-hundred agriculture teachers contacted, eighty-to responded. One hundred nine graduating seniors responded to the questionnaire. The data were processed through the facilities of the West Virginia University Computer Center.

Findings--West Virginia Vocational Agriculture teachers rate human relations skills important to success in an occupation.

Graduating seniors in vocational agriculture think human relations skills are important to success in an occupation.

Graduating seniors think they possess human relations skills to a higher degree than do vocational agriculture teachers.

Graduating seniors advise that more emphasis on human relations skills is needed in Vo-Ag and/or FFA.

Course outline and instructional programs should be based on job skills and human relations skills which are needed to become gainfully employed in the vocational world of work.

The ten most important human relations skills needed in an occupation suggested by teachers in order of importance were: dependability, honesty, responsibility, manners, enthusiasm, respect for authority, initiative, appearance, cooperation, and loyalty.

The ten most important human relations skills needed for success in an occupation suggested by graduating seniors in order of importance were: dependability, honesty, manners, cooperation, responsibility, loyalty, enthusiasm, respect of authority, friendliness, and appearance.

Considered of least importance to success in an occupation by the teachers were: sense of humor, leadership, initiative, self-respect and morale, alertness, and self-respect.

Considered of least importance to success in an occupation by the students were: sense of humor, leadership, initiative, self-respect and morale.

Human relations skills can and should be incorporated into the program of study for vocational agriculture students.

There was a close correlation between the degree to which graduating seniors thought they posses human relations skills and the amount of emphasis seniors thought they needed in Vo-Ag and/or FFA.